

## REMARKS

### Response to New Arguments Raised by Examiner

Instrument 10 of Johnson (not Clark) does not test a frequency converter:

Examiner argued the following:

In response to applicant's argument that Clark (6,064,694) does not test a frequency converter, the examiner draws attention to the abstract and summary portion of patent number 6,064,694, wherein Clark discloses a measurement method of a "frequency translating device" (ABS, lines 1-3) and further that the FTD (frequency translating device) functions as a frequency converter (column 3, lines 3-5), wherein the FTD is the device under test DUT.

The Examiner is here misquoting Applicant. Applicant never argued that *Clark* does not test a frequency converter. Examiner has apparently misread the argument Applicant made.

Examiner appears to be referring to Applicant's argument that *Johnson* does not disclose or suggest anything about mixing products or displaying labels for mixing products. In this argument, Applicant stated that the instrument 10 shown in Johnson does not test a frequency converter.

Specifically, Examiner asserted that Johnson discloses step (a) of claim 1 is disclosed by instrument 10 shown in Figure 1 of Johnson. This is incorrect. In step (a) of claim 1 labels for a plurality of mixing products are displayed. This is not disclosed or suggested by Johnson. Johnson discloses a network test instrument. The network instrument does not test a frequency converter. Instrument 10 shown in Johnson does not display labels for a plurality of mixing products. Instrument 10 does not even perform any tests for mixing products.

Nothing in Johnson discloses or suggests anything about mixing products or displaying labels for mixing products.

Discussion of the Teaching of Johnson:

Examiner has argued the following:

In response to applicant's argument that the teachings of Johnson do not support independent claims 1, 9, & 15, the examiner draws attention to Johnson's teaching of a tester with a user interface display. The primary reference of Clark teaches an automatic controller for the selection process, and uses the display for the results only. Therefore, it would be obvious to a person of ordinary skill in the art to incorporate the teachings of Johnson with respect to a user interface and display 12 for selecting the test data by the user, rather than the by automatic controller, as taught by Clark.

In the above statement, Examiner is making very broad statements about Clark and Johnson and is not applying the proper criteria to evaluate whether these references or a combination of these references make obvious the subject matter claimed in the present application.

Specifically, The U.S. Patent and Trademark Office has set forth a methodology for establishing a *prima facie* case of obviousness. Particularly, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

See MPEP 706.02 (j).

In order to establish a *prima facie* case of obviousness for the claims Examiner needs to show that all the claim limitations are taught or suggested by the cited references.

In Examiner's discussion of rejection of claims 1, 9 and 15 (in the Office Action dated December 22, 2004 and repeated in the Office Action dated May 18, 2005), Examiner asserted that certain elements of the claims are disclosed by Johnson. In the response, Applicant pointed out that, in fact, these elements are not disclosed or suggested by Johnson. By pointing out Examiner's failure to show how elements in the claims are disclosed or suggested by the cited art, Applicant has clearly demonstrated that Examiner has failed to establish a *prima facie* case of obviousness for these claims.

Examiner has responded with some general statements about Johnson and Clark. However, in order to establish a *prima facie* case of obviousness for the claims of the present Application, Examiner needs to show that all the claim limitations are taught or suggested by the cited references. As pointed out by Applicant, Examiner has failed to do this. Thus, Examiner has failed to establish a *prima facie* case of obviousness for the claims of the present Application.

#### Discussion of the Teaching of Clark:

Examiner has argued the following:

In response to applicant's argument that Clark does not suggest calculating appropriate frequencies for a mixing product, the examiner draws attention to Clark at Figure 4, step 56, and the equations in column 11, lines 39-41 where Clark teaches calculating the response for a proper frequency range for a selected measurement. The equations, as taught by Clark, satisfy the limitations as called for by applicant's claims 1, 9, & 15.

Figure 4 of Clark does not show a step 56. Perhaps, Examiner is referring to method step 66 of Figure 4. In method step 66, Clark teaches calculating a double sideband response of a device under test. In column 11, lines 39 through

41, Clark sets out transfer function equations useful in calculating the low pass equivalent double sideband response of the device under test.

None of this subject matter disclosed by Clark is pertinent to the limitations set out in the claims of the present case.

For example, in substep (b1) of claim 1, appropriate frequencies for the first mixing product are calculated in response to a user selecting a first mixing product from the plurality of mixing products. This is not disclosed or suggested by these sections of Clark.

In order to establish a *prima facie* case of obviousness for claim 1, Examiner needs to show that Clark (or some other reference) discloses or suggests calculating appropriate frequencies for a first mixing product in response to a user selecting a first mixing product from a plurality of mixing products, as set out in step (b1) of claim 1. The sections of Clark cited by Examiner disclose calculating the low pass equivalent double sideband response of a device under test. This does not disclose or suggest the subject matter set out in step (b1) of claim 1.

#### Discussion of the Teaching of Blackham:

Examiner has argued the following:

In response to applicant's argument that Blackham (6,396,285) does not teach a table that defines a plurality of mixing products, the examiner draws attention to Table 4 in patent number 6,396,285, as applied to the claim 9 and claim 15 rejections above. The said table, in effect, teaches a means for defining the parameters that need to be tested, such as the mixing products. Therefore, it would be obvious to a person of ordinary skill in the art to use a table for defining the parameters that need to be tested, as taught by Blackham, to define the mixing products as taught by Clark.

Examiner asserts that table 4 of Blackham "in effect, teaches a means for defining the parameters that need to be tested, such as the mixing products." This is an incorrect description of table 4 of Blackham.

Table 4 in Blackham is a table. However, the fact that Table 4 in Blackham is a table is all that Table 4 of Blackham has in common with the table set out in claims 9 and 15.

For example, claim 9 sets out that a table includes labels for a plurality of mixing products. Such a table is not disclosed or suggested by Blackham. Table 4 of Blackham lists a mapping between the characterized error terms from three two-port calibrations to a three-port error correction. See Blackham at column 4, lines 62 through 64. Table 4 of Blackham thus lists a mapping between characterized error terms. Table 4 of Blackham does not disclose or suggest a table within a tester that defines a plurality of mixing products, as set out in claim 9. Further, Table 4 of Blackham does not contain or suggest labels for the plurality of mixing products, as set out in claim 9.

#### **Discussion of the Rejections of the Claims**

Examiner has rejected claims 1 and 3 through 8 under 35 U.S.C. § 103 (a) as being unpatentable over USPN 6,064,694 (Clark) in view of USPN 6,820,225 (Johnson). Examiner has rejected claims 2 and 9 through 20 under 35 U.S.C. § 103 (a) as being unpatentable over Clark in view of Johnson, further in view of USPN 6,396,285 (Blackham). Applicant respectfully traverses the rejection and requests reconsideration.

#### **Criteria for a Rejection under 35 U.S.C. § 103(a)**

The U.S. Patent and Trademark Office has set forth a methodology for establishing a *prima facie* case of obviousness. Specifically three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

See MPEP 706.02 (j).

Appellant believes the Examiner has failed to establish a *prima facie* case of obviousness for the claims extant in the present case because there are claim limitations that are not taught or suggested by any of the cited references. Below, Applicant discusses limitations in the independent claims 1, 9 and 15 not disclosed or suggested by the cited art. On the basis of this, Applicant believes all the claims are patentable over the cited art.

#### Discussion of Independent Claim 1

Claim 1 sets out a method for testing a frequency converter. In step (a) labels for a plurality of mixing products are displayed. This is not disclosed or suggested by the art cited by Examiner. Examiner has argued that this step is disclosed by instrument 10 shown in Figure 1 of Johnson. This is incorrect.

Johnson discloses a network test instrument. The network instrument does not test a frequency converter. Instrument 10 shown in Johnson does not display labels for a plurality of mixing products. Instrument 10 does not even perform any tests for mixing products. Nothing in Johnson discloses or suggests anything about mixing products or displaying labels for mixing products.

Step (b) of claim 1 states that in response to a user selecting a first mixing product from the plurality of mixing products, substeps (b1) and (b2) are

performed. Examiner has argued that this part of step (b) is disclosed by Johnson at column 2, lines 66-67. At column 2, lines 66-67, Johnson states the following: "A stylus 14 is employable by a user to interact with the device by writing or tapping the screen to enter and select data." This section of Johnson does not disclose or suggest a user selecting a first mixing product from a plurality of mixing products, as set out in step (b) of claim 1. Nothing in Johnson discloses or suggests anything about mixing products or a user selecting mixing products.

In substep (b1) of claim 1, appropriate frequencies for the first mixing product are calculated in response to a user selecting a first mixing product from the plurality of mixing products. This is not disclosed or suggested by the cited art. Examiner has argued that this is disclosed by Clark at column 12, lines 63 through 65. At column 12, lines 63 through 65, Clark states the following "To make a SSB FTD measurement using the SSB method, a SSB FTD DUT is selected, for example, a 20.0 to 8.0 GHz SSB FTD DUT down converter." This statement by Clark does not disclose or suggest calculating appropriate frequencies for a first mixing product in response to a user selecting a first mixing product from the plurality of mixing products, as set out in step (b1) of claim 1.

This section of Clark is determining selection of a device under test (DUT). The DUT is a 20.0 to 8.0 GHz single sideband (SBB) frequency translating device (FTD) device under test (DUT) down converter. Selecting a DUT, as disclosed by Clark, is clearly different than calculating appropriate frequencies

for a first mixing product in response to a user selecting a first mixing product from the plurality of mixing products, as set out in step (b1) of claim 1.

In substep (b2) a measurement configuration for the first mixing product is determined in response to a user selecting a first mixing product from the plurality of mixing products. Examiner has argued that Figures 5A-E and 6 are measurement configurations. While Figures 5A-E and 6 are measurement configurations, these measurement configurations are specifically user selected and are not determined in response to a user selecting a first mixing product from a plurality of mixing products, as set out in step (b) and substep (b2).

#### Discussion of Independent Claim 9

Claim 9 sets out an interface for a tester. The tester includes a table that defines a plurality of mixing products. The table includes labels for the plurality of mixing products. This is not disclosed or suggested by the art cited by Examiner.

Examiner has argued that this table is disclosed by Table 4 shown in Blackham. Table 4 of Blackham lists a mapping between the characterized error terms from three two-port calibrations to a three-port error correction. See Blackham at column 4, lines 62 through 64. Table 4 of Blackham thus lists a mapping between characterized error terms. Table 4 of Blackham does not disclose or suggest a table within a tester that defines a plurality of mixing products, as set out in claim 9. Further, Table 4 of Blackham does not contain or suggest labels for the plurality of mixing products, as set out in claim 9.



Claim 9 sets out that the tester also includes a first display interface that displays at least a subset of the labels for the plurality of mixing products. This is not disclosed or suggested by the cited art.

Examiner has argued that display of such labels is disclosed by instrument 10 shown in Figure 1 of Johnson. This is incorrect.

Johnson discloses a network test instrument. The network instrument does not test a frequency converter. Instrument 10 shown in Johnson does not display labels for a plurality of mixing products. Instrument 10 does not even perform any tests for mixing products. Nothing in Johnson discloses or suggests anything about mixing products or displaying labels for mixing products.

Claim 9 sets out that the tester also includes a processor that, in response to a user selecting a first mixing product from the plurality of mixing products, calculates appropriate frequencies for the first mixing product, and determines a measurement configuration for the first mixing product. This is not disclosed or suggested by the cited art.

Examiner has argued that Clark at column 12, lines 63 through 65 discloses calculating appropriate frequencies for the first mixing product in response to a user selecting a first mixing product from the plurality of mixing products. This is incorrect

At column 12, lines 63 through 65, Clark states the following "To make a SSB FTD measurement using the SSB method, a SSB FTD DUT is selected, for example, a 20.0 to 8.0 GHz SSB FTD DUT down converter." This statement by Clark does not disclose or suggest calculating appropriate frequencies for a first

mixing product in response to a user selecting a first mixing product from the plurality of mixing products, as set out in claim 9.

This section of Clark is determining selection of a device under test (DUT). The DUT is a 20.0 to 8.0 GHz single sideband (SBB) frequency translating device (FTD) device under test (DUT) down converter. Selecting a DUT, as disclosed by Clark, is clearly different than calculating appropriate frequencies for a first mixing product in response to a user selecting a first mixing product from the plurality of mixing products, as set out in claim 9.

#### Discussion of Independent Claim 15

Claim 15 sets out an interface for a tester. The tester includes a table means for defining a plurality of mixing products. The table means includes labels for the plurality of mixing products. This is not disclosed or suggested by the art cited by Examiner.

Examiner has argued that this table means is disclosed by Table 4 shown in Blackham. Table 4 of Blackham lists a mapping between the characterized error terms from three two-port calibrations to a three-port error correction. See Blackham at column 4, lines 62 through 64. Table 4 of Blackham thus lists a mapping between characterized error terms. Table 4 of Blackham does not disclose or suggest a table means within a tester that defines a plurality of mixing products, as set out in claim 15. Further, Table 4 of Blackham does not contain or suggest labels for the plurality of mixing products, as set out in claim 15.

Claim 15 sets out that the tester also includes a interface means that displays at least a subset of the labels for the plurality of mixing products. This is not disclosed or suggested by the cited art.

Examiner has argued that display of such labels is disclosed by instrument 10 shown in Figure 1 of Johnson. This is incorrect.

Johnson discloses a network test instrument. The network instrument does not test a frequency converter. Instrument 10 shown in Johnson does not display labels for a plurality of mixing products. Instrument 10 does not even perform any tests for mixing products. Nothing in Johnson discloses or suggests anything about mixing products or displaying labels for mixing products.

Claim 15 sets out that the tester also includes a processor means for, in response to a user selecting a first mixing product from the plurality of mixing products, calculating appropriate frequencies for the first mixing product, and determining a measurement configuration for the first mixing product. This is not disclosed or suggested by the cited art.

Examiner has argued that Clark at column 12, lines 63 through 65 discloses calculating appropriate frequencies for the first mixing product in response to a user selecting a first mixing product from the plurality of mixing products. This is incorrect

At column 12, lines 63 through 65, Clark states the following "To make a SSB FTD measurement using the SSB method, a SSB FTD DUT is selected, for example, a 20.0 to 8.0 GHz SSB FTD DUT down converter." This statement by Clark does not disclose or suggest calculating appropriate frequencies for a first

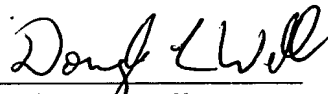
mixing product in response to a user selecting a first mixing product from the plurality of mixing products, as set out in claim 15.

This section of Clark is determining selection of a device under test (DUT). The DUT is a 20.0 to 8.0 GHz single sideband (SBB) frequency translating device (FTD) device under test (DUT) down converter. Selecting a DUT, as disclosed by Clark, is clearly different than calculating appropriate frequencies for a first mixing product in response to a user selecting a first mixing product from the plurality of mixing products, as set out in claim 15.

### Conclusion

Applicant believes this Amendment has placed the present application in condition for allowance and favorable action is respectfully requested.

Respectfully submitted,  
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